

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (Currently Amended) A method for evaluating the transparency and/or water holding capacity of a stratum corneum by using oxidized protein in the stratum corneum as an indicator of determining the degree of protein oxidation in a skin sample comprising stratum corneum, the method comprising:

(a) providing a skin sample (S) selected from the group comprising:

(i) stratum corneum having carbonylated protein; or

(ii) oxidized stratum corneum, wherein the oxidized stratum corneum is obtained by contacting a skin sample comprising stratum corneum with an oxidizing agent and wherein the oxidizing agent comprises acrolein, thereby forming an acrolein-protein adduct;

wherein the skin sample (S) comprising said stratum corneum (i) or said oxidized stratum corneum (ii) is contacted and fluorescently labeled with a hydrazine fluorophore, the hydrazine fluorophore selected from the group consisting of fluorescein-thiosemicarbazide; Texas Red hydrazide; biotin hydrazide reacted with fluorescein avidin; dinitrophenylhydrazine (DNPH) reacted with anti-DNP antibody and with a fluorescein-labeled secondary antibody specific to the anti-DNP antibody; and DNPH reacted with a fluorescent dye;

(b) measuring the fluorescence of the skin sample (S); and then

(c) determining the degree of protein oxidation of the skin sample (S),

(i) wherein the fluorescence intensity of the skin sample (S) is indicative of the degree of protein oxidation in the skin sample (S);

(ii) wherein, relative to the fluorescence intensity of a skin sample not treated with acrolein (S'), an increased fluorescence intensity of the skin sample (S) indicates an increased protein oxidation in the skin sample (S); and

(iii) wherein said skin sample (S) has increased protein oxidation.

2. (Currently Amended) ~~The method for evaluating the transparency and/or water holding capacity of a stratum corneum according to claim 1, wherein stratum corneum oxidized protein is detected by specifically and fluorescently labeling carbonyl groups of oxidized protein in a stratum corneum sample collected from skin, and then detecting the fluorescence thereof~~ A method of claim 1, further comprising:

(d) measuring the conductance of a skin sample (S") comprising stratum corneum, wherein the skin sample (S") is oxidized by contacting with an oxidizing agent, wherein said oxidizing agent is selected from the group consisting of hypochlorous acid and acrolein, and wherein an increase in protein oxidation provides a decrease in conductance of the skin sample (S") relative to the conductance of a skin sample not contacted with an oxidizing agent (S').

3. (Withdrawn) A method for detecting the degree of oxidation of protein in a stratum corneum by measuring transparency and/or water holding capacity of the stratum corneum as an indicator.

4. (Withdrawn) A method for maintaining and improving transparency and/or water holding capacity of a stratum corneum by inhibiting oxidation of protein in the stratum corneum.